

**Complete if Known**

*(Use as many sheets as necessary)*

1

95

Application Number	10/541,182
Filing Date	01/07/2004
First Named Inventor	David L. Kaplan
Art Unit	1657
Examiner Name	K.C. Srivastava
Attorney Docket Number	700355-053462

[illegible]

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
/K.S./	B1	WO	01/54667 A1	08/02/2001	Smithkline Beecham Corporation		
/K.S./	B2	WO	01/80921 A2	11/01/2001	Emory University		
		Please see Office Action					

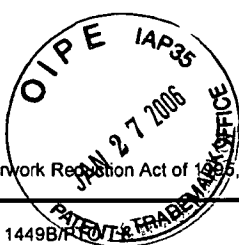
Examiner Signature	/Kailash C. Srivastava/
-----------------------	-------------------------

Date Considered	07/03/2009
-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

PTO/SB/08b (07-05)  
Approved for use through 06/30/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449B/P

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet

1

of

2

### Complete if Known

Application Number	10/541,182
Filing Date	01/07/2004
First Named Inventor	David L. Kaplan
Art Unit	1657
Examiner Name	K.C. Srivastava
Attorney Docket Number	700355-053462

### NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
Referenced	C1	ANTHANASIOU, ET AL., "Sterilization, toxicity, biocompatibility and clinical applications of polylactic acid/polyglycolic acid copolymers," Biomaterials, 1996, Vol. 17 ( No. ), p. 92-102,	
Not of	C2	BOGNITZKI, ET AL., "Nanostructured Fibers via Electrospinning," Adv Mater, 2001, Vol. 13 ( No. 1), p. 70-72,	
Record	C3	BOLAND, ET AL., "Electrospinning of Tissue Engineering Scaffolds," Polymeric Materials: Science & Engineering, 2001, Vol. 85 ( No. ), p. 51-52,	
in	C4	CATERSON, ET AL., "Three-dimensional cartilage formulation by bone marrow-derived cells seeded in polylactide/alginate amalgam," Biomed Mater Res, 2001, Vol. 57 ( No. ), p. 394-403,	
file	C5	DAL PRA, ET AL., "Silk Fibron-Coated Three-Dimensional Polyurethane Scaffolds for Tissue Engineering: Interactions with Normal Human Fibroblasts," Tissue Engineering, 2003, Vol. 9 ( No. 6), p. 1113-1121,	
	C6	DOSHI, ET AL., "Electrospinning Process and Applications of Electrospun Fibers," Journal of Electrostatics, 1995, Vol. 35 ( No. ), p. 151-160,	
	C7	HOLY, ET AL., "Use of a biomimetic strategy to engineer bone," J Biomed Mater Res, 2003, Vol. 65A ( No. ), p. 447-453,	
	C8	HUTMACHER, "Scaffolds in tissue engineering bone and cartilage," Biomaterials, 2000, Vol. 21 ( No. ), p. 2529-2543,	
	C9	JIN, ET AL., "Electrospinning Bombyx mori Silk with Poly(ethylene oxide)," Polymer Preprints (American Chemical Society, Division of Polymer Chemistry), 2002, Vol. 43 ( No. 2), p. 743-744,	
	C10	KARP, ET AL., "Fabrication of Precise Cylindrical Three-Dimensional Tissue Engineering Scaffolds for In Vitro and In Vivo Bone Engineering Applications," The Journal of Craniofacial Surgery, 2003, Vol. 14 ( No. 3), p. 317-323,	

Examiner  
Signature

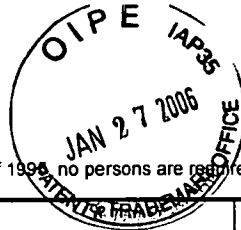
Date  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/541,182
Filing Date	01/07/2004
First Named Inventor	David L. Kaplan
Art Unit	1657
Examiner Name	K.C. Srivastava
Attorney Docket Number	700355-053462

Sheet 2 of 2

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
References  Not of Record in file	C11	LI, ET AL., "Study on Porous Silk Fibroin Materials. I. Fine Structure of Freeze Dried Silk Fibroin," J Appl Polym Sci, 2001, Vol. 79 (No. ), p. 2185-2191,	
	C12	MARTIN, ET AL., "Selective differentiation of mammalian bone marrow stromal cells cultured on three-dimensional polymer foams," J Biomed Mater Res, 2001, Vol. 55 (No. ), p. 229-235,	
	C13	NAM, ET AL., "Morphology of Regenerated Silk Fibroin: Effects of Freezing Temperature, Alcohol Addition, and Molecular Weight," J Appl Polym Sci, 2001, Vol. 81 (No. ), p. 3008-3021,	
	C14	OHGUSHI, ET AL., "Calcium Phosphate Block Ceramic With Bone Marrow Cells in a Rat Long Bone Defect," CRC Handbook of Bioactive Ceramics, Vol. II (No. ), p. 235-238,	
	C15	PEREZ-RIGUEIRO, "Silkworm Silk as an Engineering Material," J Appl Polym Sci, 1998, Vol. 70 (No. ), p. 2439-2447,	
	C16	PETITE, ET AL., "Tissue-engineered bone regeneration," Nature Biotechnology, 2000, Vol. 18 (No. ), p. 959-963,	
	C17	SOFIA, ET AL., "Functionalized silk-based biomaterials for bone formation," J Biomed Mater Res, 2000, Vol. 54 (No. ), p. 139-148,	
	C18	STITZEL, ET AL., "Atrial Smooth Muscle Cell Proliferation on a Novel Biomimicking, Biodegradable Vascular Graft Scaffold," J Biomater Appl, 2001, Vol. 16 (No. ), p. 22-33,	
	C19	ZARKOOB, "Structure and Morphology of Regenerated Silk Nano-Fibers Produced by Electrospinning," A Dissertation Presented to The Graduate Faculty of the University of Akron, August 1998,	
	C20	ZARKOOB, "Structure and Morphology of Nano Electrospun Silk Fibers," Polymer Preprints (American Chemical Society, Division of Polymer Chemistry), 1998, Vol. 39 (No. 2), p. 244-245,	

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.